

Kentucky Teachers' Retirement System



*Gary L. Harbin, CPA
Executive Secretary*

KTRS Investment Overview

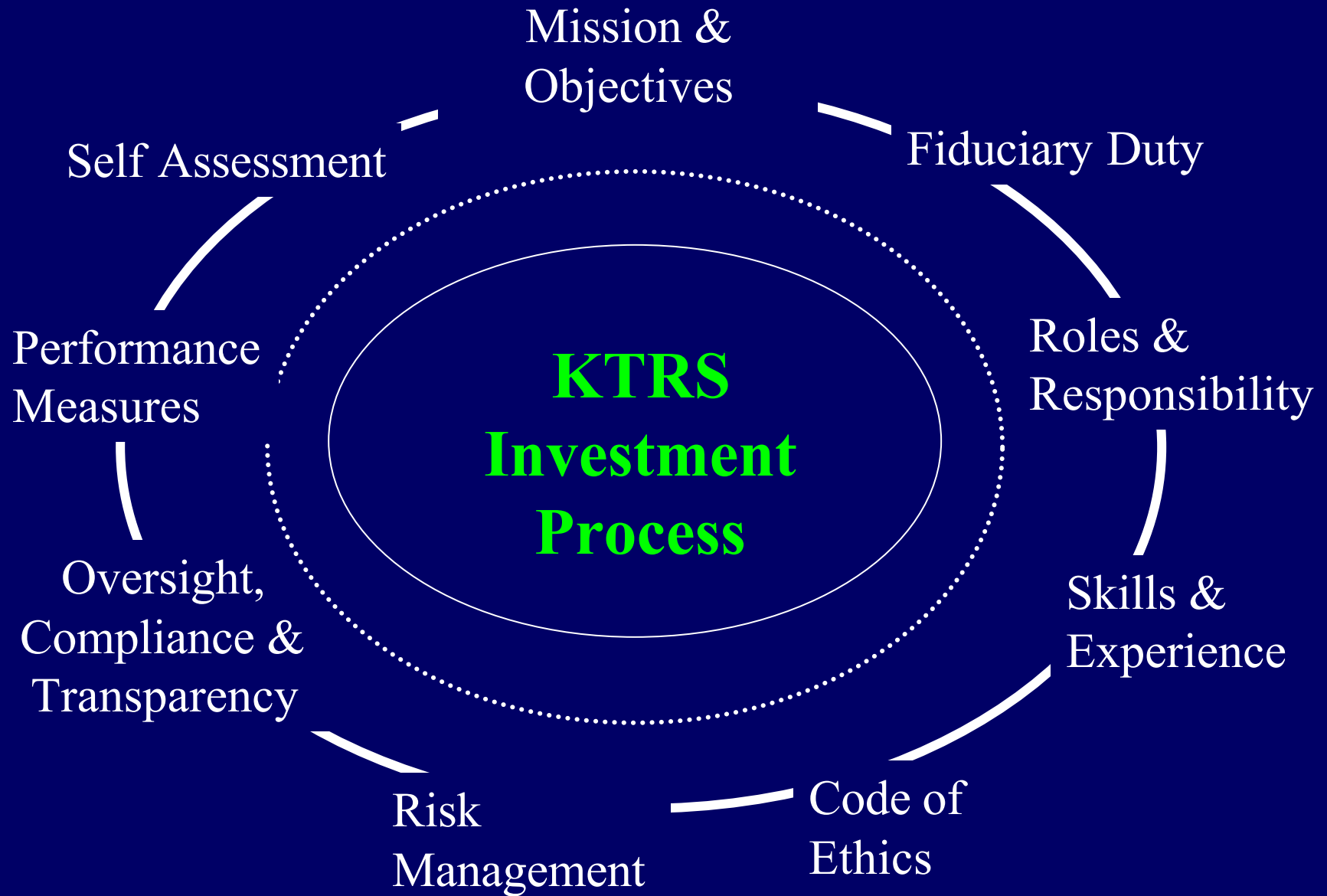


*Information for
Kentucky Public Pension
Working Group*

July 23, 2008

AGENDA

- The KTRS Investment Process
- Evolution of KTRS Investment Program
- Positive Impact on the Commonwealth



Mission & Objectives

Mission and Objectives

- Provide current and future retirement benefits for more than 119,000 active and retired members.
- The quantitative objective is to exceed the 7.5% actuarially assumed rate of return over the long term with minimal volatility.
- The objective is achieved by diversification across a variety of asset classes.

Fiduciary Duty



THE BOARD OF TRUSTEES



***Are the
fiduciaries
of the
System***

Structure of KTRS

- *9 Member Board*
 - *7 Members are Elected by the Active and Retired Membership*
 - *2 Members are Ex-Officio*

All funds are held in trust to provide benefits for the members.

Fiduciary Duty

KRS 161.430(2)

The board members and investment counselor shall discharge their duties with respect to the assets of the system solely in the interests of the active contributing members and annuitants and:

- a) For the exclusive purpose of providing benefits to members and annuitants and defraying reasonable expenses of administering the system;
- b) With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims;
- c) By diversifying the investments of the plan so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so; and
- d) In accordance with the laws, administrative regulations, and other instruments governing the system.

Investment of Funds

KRS 161.430(1)

- The board of trustees shall be the trustees of the funds of the retirement system.
- The investment policies shall be established in administrative regulations.
- The board of trustees shall employ experienced competent investment counselors to advise it on all matters pertaining to investment.

Roles & Responsibilities

KTRS BOARD OF TRUSTEES



KTRS Investment Committee



Advisors

- Becker Burke Associates
- Ennis Knupp + Associates
- Cavanaugh Macdonald Actuary

OUTSIDE EXPERTISE

Managers

- Todd Investment Advisors
- GE Asset Management
- UBS Global Asset Management
- Wellington Asset Management
- Galliard Asset Management
- Ft. Washington Advisors
- Chrysalis
- Kohlberg Kravis & Roberts
- Baring Asset Management LTD
- Baillie Gifford Overseas LTD
- Prudential Real Estate
- Molpus Woodland Group
- Hancock Timber Resource Group

INSIDE EXPERTISE

- Paul Yancey, CFA, MBA
Chief Investment Officer
- Kevin Carrico, CFA, Investment Officer
- John Browning, CFA, Investment Officer
- Karen Ashby, CFA, Investment Officer
- Mike Nohalty, Investment Officer
- Lisa Morrison, Investment Specialist
- Phil Webb, Director of Investment Accounting
- Otis Singleton, CPA, Graduate Accountant
- Sarah Meehan, BS, BBA, Graduate Accountant

Code of Ethics

Code of Ethics

- **KRS 161.430(1)** – Code of Ethics and Standards of Professional Conduct promulgated by the CFA Institute.
- **KRS 11A** – Code of Ethics for state employees.

Risk Management

What is Risk Management for a Pension Plan?

Asset Risk:

The risk of large losses (volatility) that could undermine the System's ability to provide promised benefits.

Liability Risk:

The risk that required benefit payments will exceed current assumptions.

Usage Risk-Unique to Medical Plans

The uncertainty regarding the required level of medical benefit payments.

How do you manage this risk?

- Each pension plan is unique and requires specific analysis rather than generic recommendations.
- Thus each pension plan has a unique level of tolerance for volatility.

How is KTRS different from most other public pension plans? These differences have a direct bearing on risk management.

Social Security –

- 96% of members are not eligible for Social Security benefits.

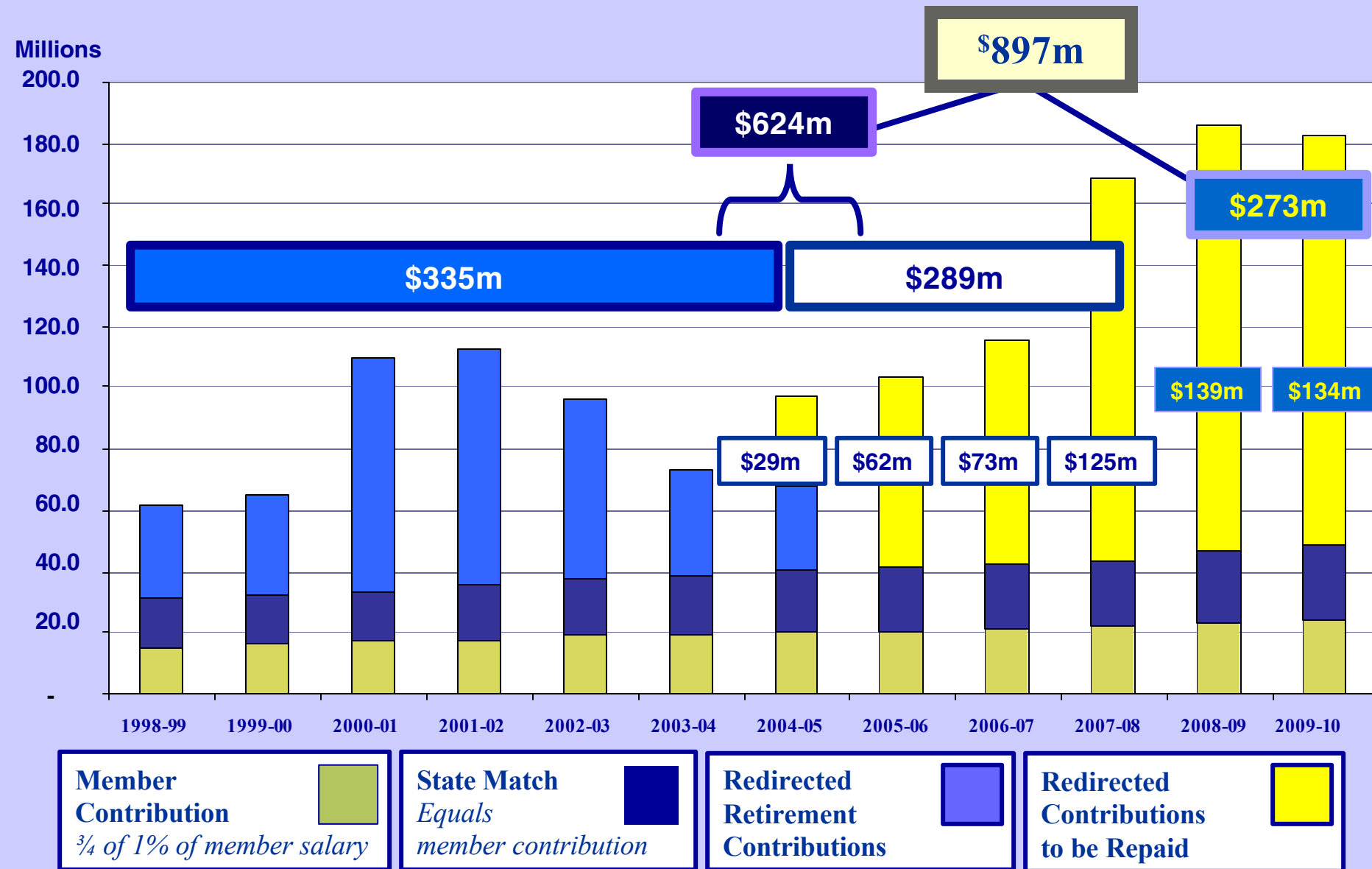
Health Care –

- One of a minority of states providing retiree health care through the pension plan.
- One of only three states providing this level of retiree health care.
- Only state redirecting contributions from the pension plan with the promise to repay, to fund retiree health care.

Laws and Regulations –

- Fixed employer contribution rate.
- Investment policy governed by administrative regulation.

Primary Funding for Medical Insurance Fund



How does KTRS address Risk Management?

Asset Risk

- Annual asset allocation review by the investment consultant.
- Manager and style diversification within asset classes.
- Risk parameters are monitored monthly.

Liability Risk

- Asset/liability modeling by the System's advisors.
- History of reasonable and affordable benefit modifications recommended by the Board of Trustees.

Usage Risk-Unique to Medical Plans

- Aggressive management of plan benefits to contain costs.
- Utilization of Medicare Part D and other federal subsidies to contain costs and reduce liabilities.
- Participation with other pension plans on federal level to seek national solutions.

Annual Asset Allocation

Strategic Ranges & Targets FY 2008-2009

Asset Class Breakdown	Regulatory Limits	Range	Target
Large Cap Stocks		42.0 - 50.0%	45.0%
Mid Cap Stocks		3.0 - 6.0%	5.0%
Small Cap Stocks		2.0 - 4.0%	3.0%
International Stocks	15.0%	8.0 - 13.0%	11.0%
Total Stocks	65.0%	57.0 - 65.0%	64.0%
Fixed Income		25.0 - 32.0%	28.0%
Cash		2.0 - 4.0%	2.0%
Real Estate Equity	10.0%	3.0 - 5.0%	4.0%
Alternative*	10.0%	0.0 - 2.0%	2.0%
Total			100.0%

* Alternative includes private equity, venture capital, infrastructure & timberland.
An additional 10% may be invested in other categories approved by the Board.

Oversight, Compliance & Transparency

Oversight, Compliance & Transparency

Investment transactions / System assets

- Transactions are reconciled daily with custodial bank.
- Execute most trades in-house.
- Weekly review of transactions by Investment Committee.
- Monthly monitoring of compliance with administrative regulations and asset allocation targets and ranges.
- Quarterly meeting and/or reporting by all investment managers to the Investment Committee.

Oversight, Compliance & Transparency

Investment transactions / System assets

- Quarterly reporting with Board of Trustees.
- Currently report annual investment information utilizing the web-site and printed reports.
 - ✓ Printed reports are sent annually to Governor, LRC, and employers.
- Annual reporting of in-state investments to LRC.
- Annual Investment Report.

Performance Measures

Performance Measures

Each portfolio is compared to a recognized benchmark.

- *Large cap US growth – Russell 1000 growth*
- *Intermediate Bond Fund – Lehman Intermediate Government/Credit*

Each asset class is compared to a relevant benchmark.

- *Large cap US stocks- S&P 500*
- *Mid-Cap US stocks- S&P 400*
- *Small Cap US stocks- S&P 600*
- *International Stocks- MSCI EAFE*

The total portfolio is compared to an allocation index which weights the appropriate indexes according to the System's weighting in each asset class.

Evolution of KTRS Investment Program

Changes in Asset Allocation

FYE 2000, 2007, 2008 and Ranges/Targets FY 2008-2009

~ ACTUAL ~

Strategic Ranges & Targets FY 2008-2009

Asset Class Breakdown

June 30, 2000

June 30, 2007

April 30, 2008

Range

Target

Large Cap Stocks

55.1%

51.9%

48.6%

42.0 - 50.0%

45.0%

Mid Cap Stocks

0.0%

3.5%

4.1%

3.0 - 6.0%

5.0%

Small Cap Stocks

2.4%

3.0%

2.6%

2.0 - 4.0%

3.0%

International Stocks

0.0%

6.7%

9.4%

8.0 - 13.0%

11.0%

Total Stocks

57.5%

65.1%

64.7%

57.0 - 65.0%

64.0%

Fixed Income

33.9%

28.8%

29.9%

25.0 - 32.0%

28.0%

Cash

6.8%

3.6%

2.2%

2.0 - 4.0%

2.0%

Real Estate Equity

1.8%

2.5%

2.6%

3.0 - 5.0%

4.0%

Alternative

0.0%

0.0%

0.6%

0.0 - 2.0%

2.0%

Total

100.0%

100.0%

100.0%

100.0%

Kentucky Teachers Retirement System

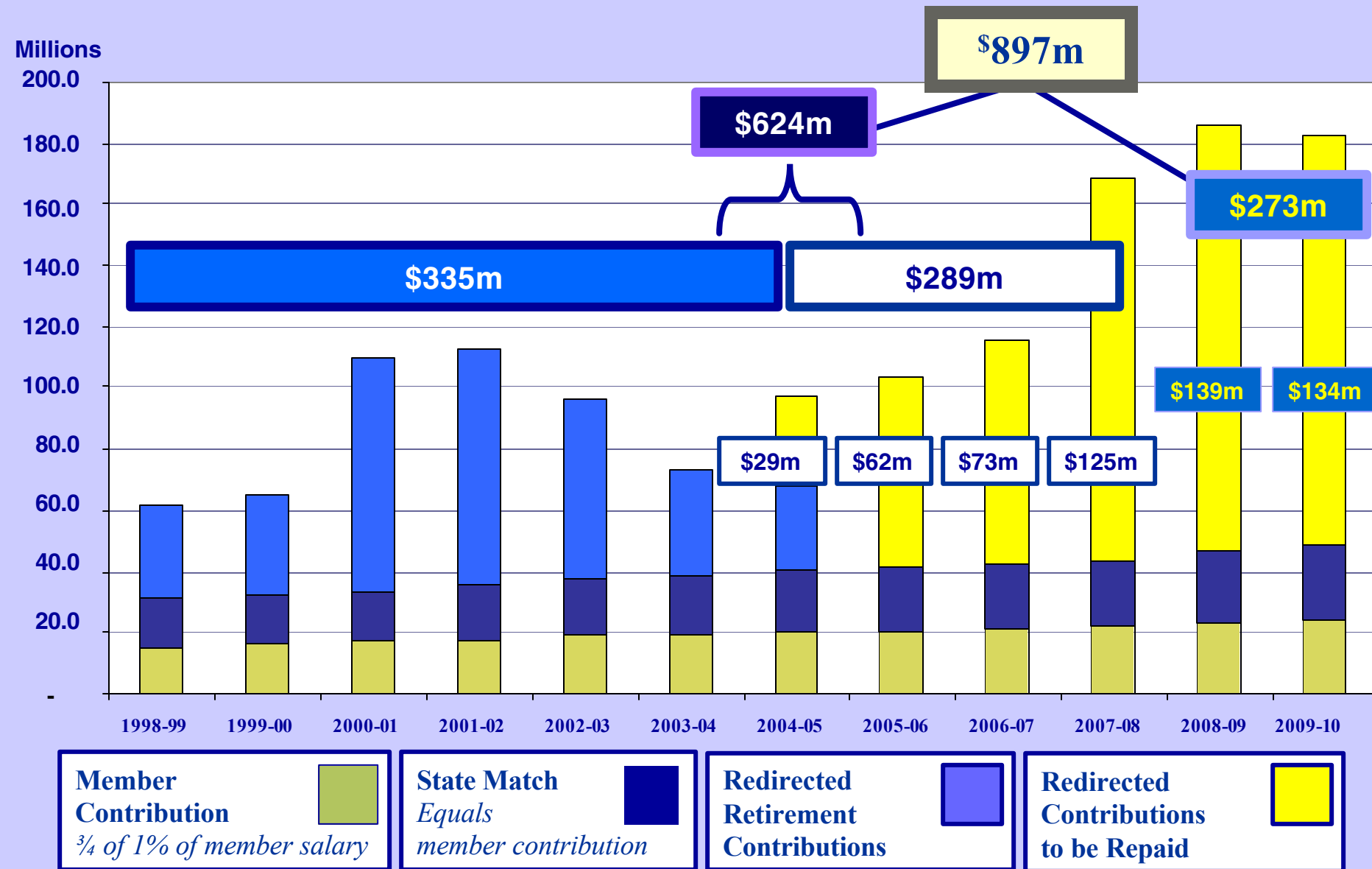
Cash flow before cash investment income

	Emp & Matching Contributions	Monthly & Qtrly Allotments	Insurance Pmts Received	Pension & Med. Benefits and Exp	Net Contributions
Jul-06	35,352,269	68,668,300	2,383,381	(106,921,558)	(517,608)
Aug-06	13,468,323	26,598,700	2,439,390	(105,517,824)	(63,011,411)
Sep-06	27,161,791	26,598,700	2,437,103	(105,992,286)	(49,794,692)
Oct-06	29,102,053	65,017,500	2,429,045	(108,174,233)	(11,625,635)
Nov-06	30,106,594	26,598,700	2,430,411	(105,941,309)	(46,805,604)
Dec-06	31,167,224	26,598,700	2,423,482	(105,828,007)	(45,638,601)
Jan-07	28,968,311	65,017,500	2,391,983	(111,166,059)	(14,788,265)
Feb-07	27,241,548	26,598,700	2,393,261	(106,157,242)	(49,923,733)
Mar-07	31,471,832	26,598,700	2,388,890	(105,855,763)	(45,396,341)
Apr-07	29,253,755	65,017,500	2,374,381	(108,197,010)	(11,551,374)
May-07	29,518,148	26,598,700	2,327,485	(105,652,382)	(47,208,049)
June-07	41,975,969	26,598,700	2,369,900	(105,388,941)	(34,444,372)
	354,787,817	476,510,400	28,788,712	(1,280,792,614)	(420,705,685)

Cash flow with cash investment income

	Net Contributions	Interest Received	Dividends Received	Rental and Sec. Lend Income	Net Cash Flow
Jul-06	(517,608)	17,790,590	11,297,899	2,593,731	31,164,612
Aug-06	(63,011,411)	35,052,728	9,469,050	2,556,618	(15,933,015)
Sep-06	(49,794,692)	16,922,241	20,092,997	2,642,279	(10,137,175)
Oct-06	(11,625,635)	17,909,682	11,518,286	2,628,510	20,430,843
Nov-06	(46,805,604)	27,545,268	8,657,979	2,451,840	(8,150,517)
Dec-06	(45,638,601)	17,214,705	19,473,502	2,738,125	(6,212,269)
Jan-07	(14,788,265)	17,473,379	12,098,375	2,640,748	17,424,237
Feb-07	(49,923,733)	34,629,593	9,092,489	2,608,379	(3,593,272)
Mar-07	(45,396,341)	16,099,768	19,609,079	2,758,113	(6,929,381)
Apr-07	(11,551,374)	15,400,063	13,332,698	2,689,632	19,871,019
May-07	(47,208,049)	22,999,941	11,720,523	2,559,388	(9,928,197)
June-07	(34,444,372)	13,635,314	19,156,030	2,622,399	969,371
	(420,705,685)	252,673,272	165,518,907	31,489,762	28,976,256

Primary Funding for Medical Insurance Fund



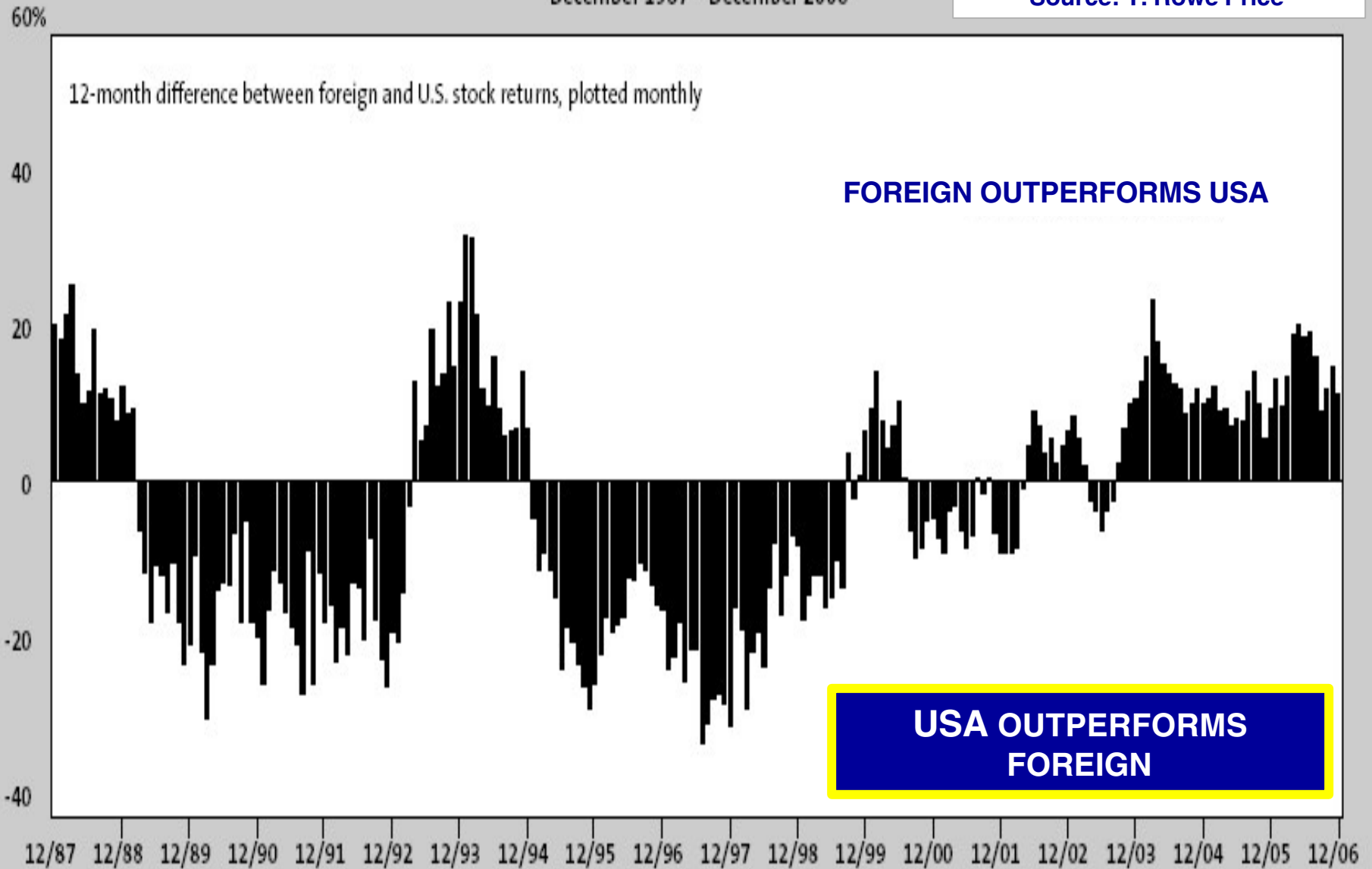
2000 Study by Morgan Stanley

	<u>S&P 500</u>	<u>EAFE</u>
1970 - 1979	5.0%	10.1%
1980 - 1989	17.6%	22.8%
1990 - 1999	<u>18.2%</u>	<u>7.3%</u>
30 Years 1999	13.4%	13.2%
2000 - 2006	1.1%	4.7%
37 Years 2006	11.4%	11.5%
<i>Net of fees (4bpsUS/40bps EAFE)</i>	11.4%	11.1%

Comparing Foreign and U.S. Stocks Over the Long Term

December 1987 – December 2006

Source: T. Rowe Price



Annualized Returns

Total Return on KTRS Investments thru Fiscal Year End 2007

Year	S&P 500 Index	KTRS Stocks	Lehman Gov./Credit High Quality Index	KTRS Bonds	KTRS Real Estate	KTRS Total Portfolio
1 Year Return	20.6%	20.6%	5.7%	6.3%	8.2%	15.3%
5 Year Return	10.7%	10.7%	4.4%	4.7%	9.6%	8.5%
10 Year Return	7.1%	7.8%	6.0%	6.2%	9.3%	7.1%
15 Year Return	11.2%	11.5%	6.3%	6.6%	9.3%	8.8%
20 Year Return	10.8%	11.2%	N/A	7.5%	9.0%	9.1%

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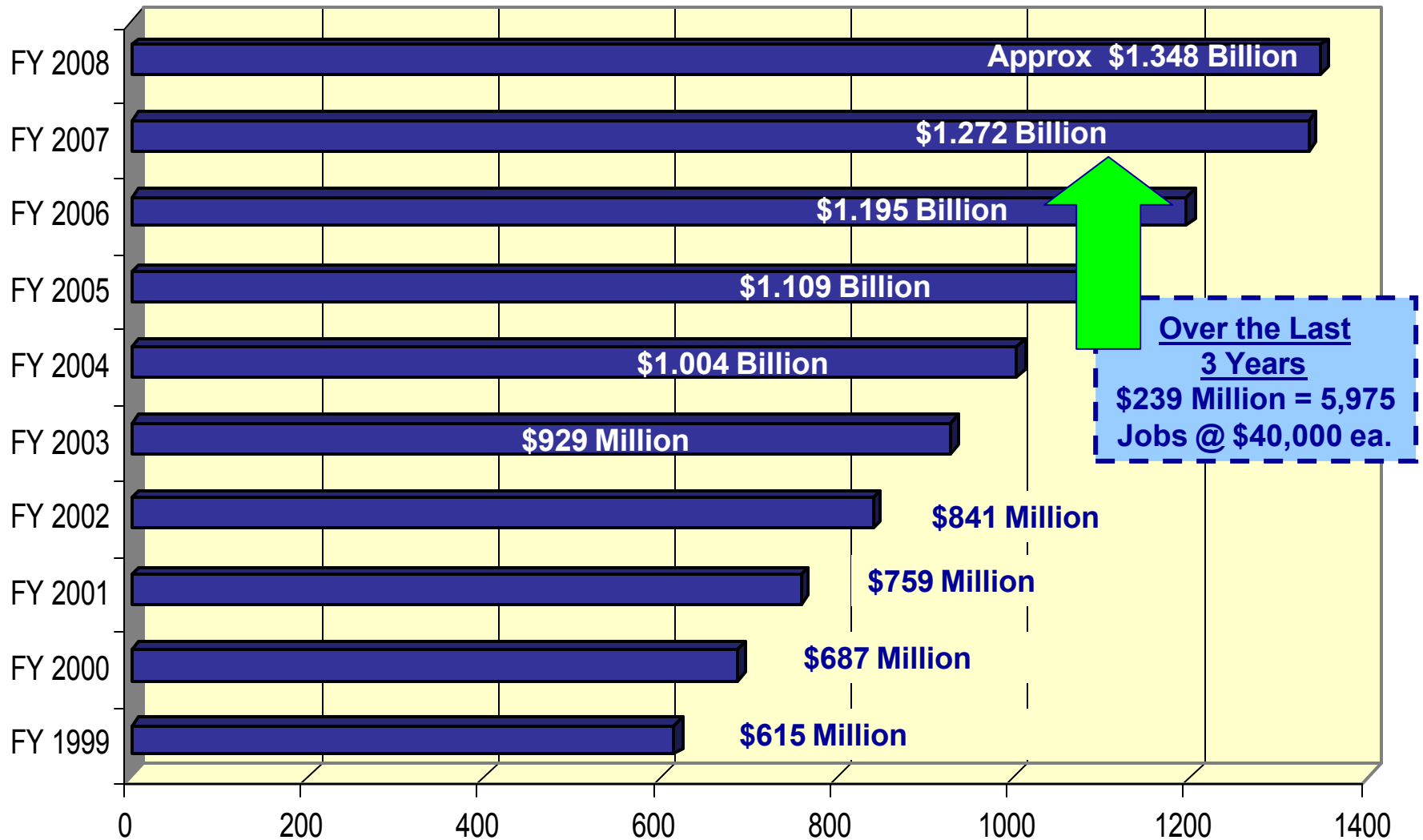
Positive Impact on the Commonwealth

Examples of Investment of Teachers' Assets In Kentucky

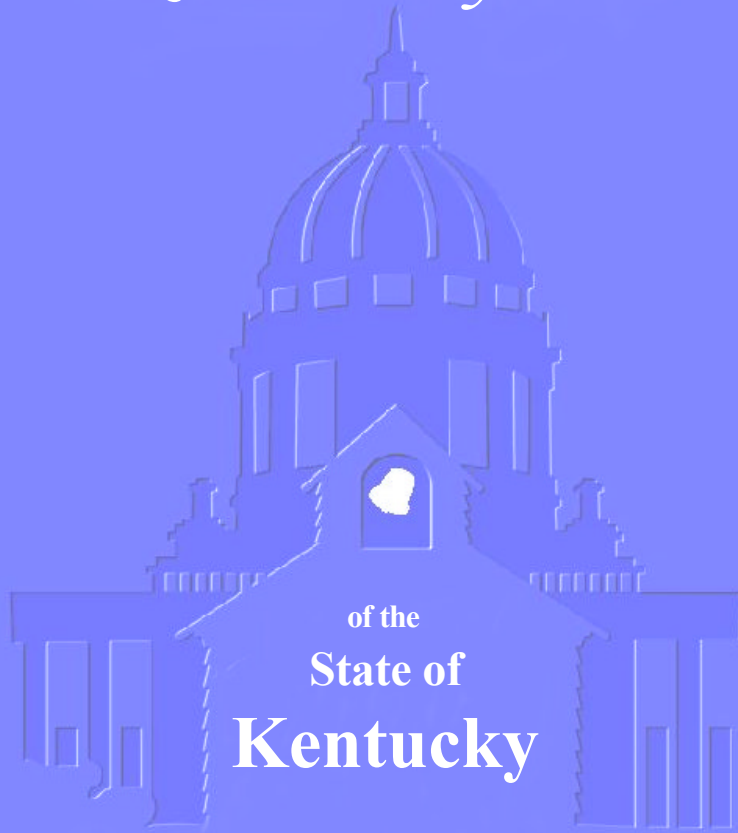
- Taxable Obligations of Kentucky Cities
- Kentucky Infrastructure Authority
- Kentucky Housing Corporation
- Kentucky State Property & Buildings Commission
- Commitments to Private Equity/Venture Capital with a Kentucky Focus
- Commercial Real Estate
- Bonds with Kentucky Corporations

In keeping with the fiduciary duties as outlined in statute, though the System is mindful of the economic impact of investing in Kentucky, investments are made solely for the benefit of the members of the System.

KTRS Distributes Hundreds of Millions of Dollars Annually



Teachers'
Retirement System



Teachers' Retirement System
of the State of Kentucky

Our Members
Come First!

Reach us at . . .

1.800.618.1687

502.848.8500

www.ktrs.ky.gov

Protecting & Preserving Teachers' Retirement Benefits